

In the Specification

[0001] This is a regular patent application based upon and claiming the benefit of provisional patent application Serial No. ~~XX~~ 60/540,440 filed January 30, 2004 and provisional patent application Serial No. ~~XX~~ 60/542,148 filed February 6, 2004.

[0010] FIG. 1 diagrammatically illustrates the integrated transmission bell housing attached to a marine internal combustion engine and graphically compares the length of the specially configured engine (32 inches) against the length of a comparable ~~General Motors~~ GENERAL MOTORS engine (47 inches) and against the length of a diesel marine engine (51 inches) that produce the same power ratings;

[0020] The present invention relates to an integrated transmission bell housing for an internal combustion engine, and particularly for a marine internal combustion engine. In one working embodiment, the integrated bell housing is utilized in conjunction with a ~~General Motors~~ GENERAL MOTORS (GM) 60 degree V6 internal combustion engine. Utilizing the integrated bell housing with engine accessories such as a supercharger, alternator, water pump and starter mounted on the bell housing and transmission case, the specially configured marine internal combustion engine provides the following characteristics:

Specifications: ~~General Motors~~ GENERAL MOTORS 60 degree V6

| | | | |
|--------------|------|------|------|
| Horsepower | 300 | 240 | 175 |
| Displacement | 3.4L | 3.4L | 3.4L |

| | | | |
|--------------------------|-------|-------|-------|
| Cylinders 60 degree V6 | 6 | 6 | 6 |
| Compression Ratio | 9.5:1 | 9.5:1 | 9.5:1 |
| Fuel System | MPI | MPI | MPI |
| Weight - U.S. LBS | 400 | 400 | 390 |
| (including transmission) | | | |
| RPM Full Throttle | 5200 | 5200 | 5200 |

[0031] The bell housing or transmission casing 20 is of one-piece design incorporating a rear mounting system 39 in the rear cover plate. The bell housing case 20 could be made of composite materials (such as fiberglass) internally reinforced with aluminum plates to hold bearing tolerances. Casing 20 could also be cast in aluminum.